

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 21, 2004. Claims 1 to 60 remain pending in the application, of which Claims 1, 16, 31 and 46 are independent. Reconsideration and further examination are respectfully requested.

Claim 46 was objected to for an informality that has been attended to by amendment as recited above. Withdrawal of the objection is respectfully requested.

Claims 1, 3 to 7, 13, 14, 16, 18 to 22, 28, 29, 31, 33 to 37, 43, 44, 46, 48 to 52, 58 and 59 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 5,611,050 (Theimer) in view of U.S. Publication No. 2002/0007422 (Bennett), and Claims 2, 8 to 12, 15, 17, 23 to 27, 30, 32, 38 to 42, 45, 47, 53 to 57 and 60 were rejected under 35 U.S.C. § 103(a) over Theimer in view of Bennett and further in view of U.S. Patent No. 5,633,932 (Davis). The rejections are respectfully traversed and the Examiner is requested to reconsider and withdraw the rejections after careful consideration of the following comments.

The present invention concerns a user remotely obtaining exclusive control over a device, such as a printer. According to the invention, the user remotely establishes communication with the device and requests to obtain exclusive control over the device's capabilities. The device determines whether it is available for the user to obtain control, and if it is available, the user is provided with remote exclusive control of the device's capabilities. However, if the device is not available for the user to obtain remote exclusive control of the device's capabilities, the user is added to a reservation queue of users

requesting exclusive control of the device's capabilities. Then, when the user reaches a first position within the reservation queue, the user is provided with remote exclusive control of the device's capabilities. The user can then request to process a job using the device's capabilities once the user has been provided remote exclusive control of the device's capabilities, and the requested job is added to a job queue of jobs to be processed using the device's capabilities once the user has been provided remote exclusive control of the device's capabilities. In either case, once the user has been provided remote exclusive control of the device's capabilities, at least one job within a job queue, corresponding to a user other than the user who has been provided remote exclusive control of the device's capabilities, is deferred from being processed until remote exclusive control of the device's capabilities by the user who has been provided remote exclusive control is relinquished.

As a result, a user can request to obtain control over a device, and once control has been obtained (either immediately or after the user reaches the first position within the user reservation queue), the user can then request a job be processed by the device, where the job is added to a queue and can be processed promptly by the user.

Referring specifically to the claims, amended independent Claim 1 is a method for a user to remotely obtain exclusive control of a device over a network, the method comprising the steps of remotely establishing communication with the device over the network, requesting to obtain remote exclusive control of the device's capabilities, determining whether the device is available for the user to obtain remote exclusive control of the device's capabilities, in a case where the determining step determines that the device is available for the user to obtain remote exclusive control of the device's capabilities,

providing the user remote exclusive control of the device's capabilities, in a case where the determining step determines that the device is not available for the user to obtain remote exclusive control of the device's capabilities, adding the user to a reservation queue of users requesting exclusive control of the device's capabilities, providing remote exclusive control of the device's capabilities to the user when the user reaches a first position within the reservation queue, requesting to process a job using the device's capabilities once the user has been provided remote exclusive control of the device's capabilities, and adding the requested job to a job queue of jobs to be processed using the device's capabilities once the user has been provided remote exclusive control of the device's capabilities, wherein, if the user has been provided remote exclusive control of the device's capabilities, at least one job within the job queue, corresponding to a user other than the user who has been provided remote exclusive control of the device's capabilities, is deferred from being processed until remote exclusive control of the device's capabilities by the user who has been provided remote exclusive control is relinquished.

Amended independent Claims 16, 31 and 46 are computer-executable process steps, computer-readable medium, and apparatus claims, respectively, that substantially correspond to Claim 1.

The applied art, alone or in any permissible combination, is not seen to disclose or to suggest the features of Claims 1, 16, 31 and 46. More particularly, the applied art is not seen to disclose or to suggest at least the feature of, in a case where it is determined that a device is not available for a user to obtain remote exclusive control of the device's capabilities, adding the user to a reservation queue of users requesting exclusive

control of the device's capabilities, and then providing remote exclusive control of the device's capabilities to the user when the user reaches a first position within the reservation queue such that the user then requests to process a job and the requested job is added to a queue of jobs to be processed, with at least one job within the job queue, corresponding to a user other than the user who has been provided remote exclusive control of the device's capabilities, being deferred from being processed until remote exclusive control of the device's capabilities by the user who has been provided remote exclusive control is relinquished.

Theimer is merely seen to disclose that a user is remotely identified and a device in close proximity to the location of the user is controlled so as to provide the user with the ability to use the device based on policy information of the user. The identified user is only provided with control of a device in proximity to the user if the device is available (i.e., is not currently being used by another user). As rightly recognized by the Examiner, however, Theimer fails to disclose a mechanism for providing the user with control over a particular device that is already in use by another user, or more particularly, that the user is added to a reservation queue of users requesting to remotely obtain exclusive control of the device's capabilities if the device is not available. Nonetheless, the Office Action alleged that it is well known to queue requests when a device is busy and cites to paragraphs 92 and 96 of Bennett to support this position.

As Applicants understand Bennett, various types of equipment are controlled by software applications, where more than one application can access the equipment to perform an operation. According to paragraphs 92 to 96, the types of access

are either “exclusive read” access, “read” access, “exclusive write” access, or “write” access, where the read and write access privileges are mutually exclusive. If one application has been granted “exclusive read” access, another application cannot be granted either “exclusive read” or “read” access. Likewise, if one application has been granted “exclusive write” access, another application cannot be granted either “exclusive write” or “write” access. In a case where a requested resource has been “taken” by another application, the requesting application is placed in a wait queue (depending on the priority of the requesting application), where there are 4 types of wait queues (read, write, exclusive read, and exclusive write) corresponding to the requested type of access. The read and write queues are unlimited in depth, but the exclusive read and exclusive write queues can only accommodate one application. Thus, Theimer merely discloses that an application submits a request for access to perform a job which forms the basis of the access request, and if access is denied, the application’s access request may be added to a wait queue.

While Bennett may add an access request to a wait queue, the access request itself is the requested job. As such, Bennett is unlike the present invention in which a user is first provided with remote exclusive control, either due to the device being available or after the user reaches a first position within a reservation queue, and once the user has been provided with remote exclusive control, the user then requests to process a job, where the job is added to a queue that the user can, if they wish, manipulate so as to process the job ahead of other deferred jobs in the job queue. Accordingly, even if Theimer and Bennett could have been combined at the time of the invention, such a combination still would not

have resulted in the feature of, in a case where it is determined that a device is not available for a user to obtain remote exclusive control of the device's capabilities, adding the user to a reservation queue of users requesting exclusive control of the device's capabilities, and then providing remote exclusive control of the device's capabilities to the user when the user reaches a first position within the reservation queue such that the user then requests to process a job and the requested job is added to a queue of jobs to be processed, with at least one job within the job queue, corresponding to a user other than the user who has been provided remote exclusive control of the device's capabilities, being deferred from being processed until remote exclusive control of the device's capabilities by the user who has been provided remote exclusive control is relinquished.

In view of the foregoing deficiencies of Theimer and Bennett, Claims 1, 16, 31 and 46 are believed to be allowable.

Davis has been studied but is not seen to add anything that, when combined with Theimer and/or Bennett, would have resulted in the feature of, in a case where it is determined that a device is not available for a user to obtain remote exclusive control of the device's capabilities, adding the user to a reservation queue of users requesting exclusive control of the device's capabilities, and then providing remote exclusive control of the device's capabilities to the user when the user reaches a first position within the reservation queue such that the user then requests to process a job and the requested job is added to a queue of jobs to be processed, with at least one job within the job queue, corresponding to a user other than the user who has been provided remote exclusive control of the device's capabilities, being deferred from being processed until remote exclusive control of the

device's capabilities by the user who has been provided remote exclusive control is relinquished.

In view of the forgoing amendments and remarks, all of Claims 1 to 60 are believed to be allowable.

No other matters having been raised, the entire application is believed to be in condition for allowance and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should be directed to our below listed address.

Respectfully submitted,



Attorney for Applicants
Edward A. Kmett
Registration No. 42,746

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

CA_MAIN 93405v1